

ABSTRACT OF THE DISCLOSURE

A process for catalytic cracking of a hydrocarbon feedstock comprises contacting the feedstock with a catalyst composition comprising a primary cracking component, such as zeolite Y, and a mesoporous aluminophosphate material which includes a solid aluminophosphate composition modified with at least one element selected from zirconium, cerium, lanthanum, manganese, cobalt, zinc, and vanadium. The mesoporous aluminophosphate material has a specific surface area of at least 100 m²/g, an average pore size less than or equal to 100 Å, and a pore size distribution such that at least 50% of the pores have a pore diameter less than 100 Å.